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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/731,170 | 12/06/2000 | Shoichiro Usui | USUI-12N | 9121 |

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| EXAMINER |
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LUGO, CARLOS

| ART UNIT | PAPER NUMBER |
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| 3677 | |

DATE MAILED: 04/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|--|-----------------|--|-------------|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/731,170 | USUI, SHOICHIRO | |
| Period for Reply | Examiner | Art Unit | (Signature) |
| | Carlos Lugo | 3677 | |
| <i>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</i> | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. | | | |
| <ul style="list-style-type: none"> - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). | | | |
| Status | | | |
| 1) <input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>25 February 2003</u> . | | | |
| 2a) <input checked="" type="checkbox"/> This action is FINAL . 2b) <input type="checkbox"/> This action is non-final. | | | |
| 3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. | | | |
| Disposition of Claims | | | |
| 4) <input checked="" type="checkbox"/> Claim(s) <u>5-14</u> is/are pending in the application. | | | |
| 4a) Of the above claim(s) _____ is/are withdrawn from consideration. | | | |
| 5) <input type="checkbox"/> Claim(s) _____ is/are allowed. | | | |
| 6) <input checked="" type="checkbox"/> Claim(s) <u>5-14</u> is/are rejected. | | | |
| 7) <input type="checkbox"/> Claim(s) _____ is/are objected to. | | | |
| 8) <input type="checkbox"/> Claim(s) _____ are subject to restriction and/or election requirement. | | | |
| Application Papers | | | |
| 9) <input type="checkbox"/> The specification is objected to by the Examiner. | | | |
| 10) <input type="checkbox"/> The drawing(s) filed on _____ is/are: a) <input type="checkbox"/> accepted or b) <input type="checkbox"/> objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | |
| 11) <input checked="" type="checkbox"/> The proposed drawing correction filed on <u>14 April 2002</u> is: a) <input checked="" type="checkbox"/> approved b) <input type="checkbox"/> disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action. | | | |
| 12) <input type="checkbox"/> The oath or declaration is objected to by the Examiner. | | | |
| Priority under 35 U.S.C. §§ 119 and 120 | | | |
| 13) <input checked="" type="checkbox"/> Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). | | | |
| a) <input checked="" type="checkbox"/> All b) <input type="checkbox"/> Some * c) <input type="checkbox"/> None of: 1. <input checked="" type="checkbox"/> Certified copies of the priority documents have been received. 2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____. 3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | |
| 14) <input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application). a) <input type="checkbox"/> The translation of the foreign language provisional application has been received. | | | |
| 15) <input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121. | | | |
| Attachment(s) | | | |
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . | |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) | |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | | 6) <input type="checkbox"/> Other: _____ . | |

DETAILED ACTION

1. This Office action is in response to applicant's amendment filed on February 25, 2003.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 5,6,9 and 12-14 are rejected** under 35 U.S.C. 103(a) as being unpatentable over US Pat No 5,402,829 to Takikawa et al (Takikawa) in view of US Pat No 4,469,356 to Duret et al (Duret).

Regarding claim 5, Takikawa discloses a high-pressure pipe assembly comprising a metal pipe (1) having opposed first and second ends.

A connecting head (2), adjacent the first end, having a seat surface flared outwardly from the first end and a cylindrical surface extending from the seat surface away from the first end. The cylindrical surface has a selected outside diameter.

A cylindrical body extends from the connecting head toward the second end. The body has an outside diameter less than the selected diameter of the cylindrical surface. A centrally passage (1') extends through the metal pipe from the first to the second end. The passage defines an annular groove spaced from the first end.

The assembly further includes a unitary sleeve washer (4) that has opposing first and second ends. A portion of the sleeve extends from the first towards the second end.

However, Takikawa fails to disclose that the sleeve engages and surrounds at least a portion of the cylindrical surface of the connecting head. Takikawa discloses the use of a collar (3) that covers the cylindrical portion of the body in order to protect the connecting head.

Duret teaches that the use of a sleeve washer (14) over a cylindrical body of a metal pipe (16) is known in the art (Figure 6).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a sleeve, as taught by Duret, into a connection as described by Takikawa, in order to protect the connecting head.

As to claim 6, Takikawa discloses that the seat surface comprises a conical generated surface.

As to claim 9, Takikawa discloses that the connecting head includes a radially aligned annular surface extending between the connecting head and the cylindrical body.

As to claim 11, Takikawa discloses that the passage has a first cylindrical portion between the annular groove and the first end and a second cylindrical portion between the annular groove and the second end. The first and second cylindrical portions defines an inside diameter less than of the annular groove.

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As to claims 12-14, Takikawa illustrates that the outside diameter of the cylindrical surface is between 10-45% larger than the outside diameter of the cylindrical body.

4. Claims 7,8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 5,402,829 to Takikawa et al (Takikawa) and US Pat No 4,469,356 to Duret et al (Duret) in view of US Pat No 5,109,888 to Usui.

Regarding claims 7 and 8, Takikawa, as modified by Duret, fails to disclose that the seat surface comprises an spherically generated surface or a planar end face at the first end and a flared surface extending outwardly from the planar end face.

Usui teaches a seat surface comprising a spherically generated surface or a planar end face at the first end and a flared surface extending outwardly from the planar end face.

As to claim 10, Takikawa, as modified by Duret, fails to disclose that the connecting head includes a conical generated surface extending between the connecting head and the cylindrical body.

Usui teaches that the connecting head includes a conical generated surface extending between the connecting head and the cylindrical body.

A change in the shape of a prior art device is a design consideration within the level of skill of one skilled in the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to change the shape of the seat surface because is only a design consideration.

Response to Arguments

5. Applicant's arguments filed on February 25, 2003 have been fully considered but they are not persuasive.

Regarding applicant's arguments regarding the formation process of the pipe (Page 3 Line 14 to Page 4 Line 3), applicant is reminded that the method of forming the device is not germane to the issue of patentability of the device itself.

As to applicant's arguments that Duret fails to disclose a sleeve over a cylindrical body (Page 4 Lines 4-18), Duret teaches that the use of a sleeve washer (14) over a cylindrical body of a metal pipe (16) is known in the art (Figure 6).

As to applicant's arguments that there must be something in the references that would motivate the skilled in the art to combine the references (Page 4 Line 19), Takikawa discloses the use of a collar (3) that covers the cylindrical portion of the body in order to protect the connecting head. Duret shows that is known in the art to have a unitary sleeve to cover a cylindrical body.

As to applicant's arguments regarding the cavitations related failures (Page 5 Lines 5-10), this limitation is not claimed therefore it is not consider.

As to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning (Page 6 Line 24), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based

upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lugo. The examiner phone number is (703)-305-9747. The fax number for correspondence before a final action is (703)-872-9326 and the fax number for correspondence after final action is (703)-872-9327. The email direction of the examiner is carlos.lugo@uspto.gov. The examiner can normally be reached on Monday to Friday from 9:30am to 6:30pm (EST). If the

examiner is not available, please leave a message, including the application number and the examiner will answer the message as soon as possible.

April 16, 2003



ROBERT A. SANDY
PRIMARY EXAMINER